

AMENDMENTS TO THE DRAWINGS

Please amend Figure 3 as shown in the enclosed replacement sheet. The attached drawing sheet has been amended to replace the bidirectional arrow between blocks 304 and 306 with a unidirectional arrow from block 304 to block 306.

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application, and for indicating that the drawings filed on September 30, 2003, are accepted, and for indicating that the information disclosure statements filed on January 9, 2004 have been considered.

Disposition of the Claims

Claims 1-30 are pending in the application. Claims 1, 8, 13, 20, 24, 29, and 30 are independent. The remaining claims depend, directly or indirectly, from independent claims 1, 8, 13, 20, 24, 29, and 30.

Amendments to the Claims

Claims 1, 2, 8, 9, 13, 19-21, and 24, 25, and 28-30 are amended by way of this reply to clarify the invention. In addition, claim 15 is amended to address a dependency issue and claims 26 and 27 are amended to address typographical issues. No new subject matter is added by way of these amendments. Support for these amendments may be found, for example, in paragraphs [0034] and [0031] and the originally filed claims.

Amendment to the Drawings

Applicants respectfully submit a replacement sheet for Figure 3. Applicants submit that this replacement figure is formal and request that the Examiner indicate acceptance of the drawing in the

next action. No new matter is added by way of this replacement sheet as the modification is addressing a typographical error.

Objection to the Claims

Claim 15 stands objected to for being dependent on itself. Claim 15 is amended by way of this reply, and now properly depends from claim 14. Withdrawal of the objection is respectfully requested.

Rejection under 35 U.S.C. § 112

Claims 8-12 and 24-29 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner takes issue with the term “layer key,” which the Examiner asserts is not defined in the Specification. *See* Office Action dated April 3, 2009, pages 2-3. The rejection is respectfully traversed.

“The person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but *in the context of the entire patent, including the specification.*” *See Phillips*, 415 F.3d 1303 at 1313 (Fed. Cir. 2005) (*en banc*) (emphasis added).

Turning to the Specification, the Specification makes numerous references to a “layer key,” even beyond that which the Examiner has cited. *See* Office Action dated April 3, 2009, page 3. For example, paragraph [0044] of the originally filed Specification recites “[A] layer key may be used to re-encrypt the encrypted data block(s) without necessitating re-encryption of the new symmetric

key with each public key, and re-encryption of the data with the new symmetric key.” Additional references to a layer key may be found, which further illustrate the characteristics and features of a layer key. In view of the above, Applicant asserts that the claim term, when read in the context of the *entire* application, provides clarity sufficient for a person of ordinary skill in the art to understand the “metes and bounds of the claim so as to understand how to avoid infringement,” and therefore satisfy the statutory requirement. *See* MPEP § 2173.02. Accordingly, withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 103

Claims 1, 3, 4, 13, 14, 15, 20, 22, 23, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,149,900 (“Rothrock”) in view of U.S. Patent No. 6,490,680 (“Scheidt”). This rejection is respectfully traversed.

MPEP § 2143 states that “[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit.” Further, when combining prior art elements, the Examiner “must articulate the following: (1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference....” *See* MPEP § 2143(A); *KSR International Co. v. Teleflex Inc.*, 550 USPQ2d 1385 (2007). Applicants assert that the Examiner has failed to show sufficient evidence to establish a *prima facie* case of obviousness

with respect to the pending claims. Specifically, the Examiner has failed to establish a *prima facie* case of obviousness for at least the following reasons provided below.

Claims 1, 3, 4, 13, 14, 15, 20, 22, 23, and 30

Amended claim 1 recites, in part, that “the user data access record comprises a bitmap indicating which encrypted data has been accessed by a first user.” Claims 13, 20, and 30 include similar limitations. The Examiner relies on Rothrock to disclose this limitation. *See* Office Action dated April 3, 2009, page 4. However, neither Rothrock nor Scheidt, either alone or in combination, disclose or otherwise render obvious the above cited limitation.

The Examiner asserts that Rothrock discloses using user data access records to determine properly authorized access. However Rothrock does not disclose an element equivalent to a user data access record as recited in claim 1. Specifically, an application in Rothrock calls an agent API to obtain properly authorized access to content. *See* Rothrock, column 5, ll. 29-32. The agent API in Rothrock does not indicate which encrypted data has been accessed by a user. Therefore, the agent API is not equivalent to a user data access record.

Amended claim 1 also recites, in part, “re-encrypting the selected data using a second symmetric key to obtain new encrypted data; ...encrypting the second symmetric key using the public key to obtain a new encrypted symmetric key.” Amended independent claims 13, 20, and 30 include similar limitations. The Examiner relies on FIGs. 1 and 2, and columns 16 and 17 in Scheidt to teach this limitation. *See* Office Action dated April 3, 2009, pages 4-5. Specifically, the Examiner has equated the working split in Scheidt to the symmetric key in the above cited limitation of claim 1. Although the working split in Scheidt is used in the encryption of an object,

the working split is not, itself encrypted. The working split in Scheidt is constructed or reconstructed from user options and credentials, and is used for encrypting one object. *See* Scheidt, column 16, ll. 46-50. Scheidt fails to disclose constructing the working split without the use of user credentials, and therefore does not disclose encrypting a symmetric key using a public key. Further, the constructing and reconstructing of the working split disclosed in Scheidt is not equivalent to encrypting and decrypting using an asymmetric key, and therefore Scheidt fails to disclose using a public key to encrypt a symmetric key, as recited in claim 1. Although not relied on by the Examiner, Rothrock also fail to disclose or render obvious the above cited claim.

Finally, amended claim 1 recites, in part, “storing the new encrypted data and the new encrypted symmetric key.” Amended independent claims 13, 20, and 30 include similar limitations. The Examiner again relies on Scheidt to disclose this limitation. *See* Office Action dated April 3, 2009, 5-6. The encrypted data block in Scheidt, however, merely includes of encrypted data and an encrypted header. *See* Scheidt, Figure 1. The encrypted data is decrypted using a credentials file that is used in the creation and recreation of a session key. *See* Scheidt, column 4, ll. 51-54. The session key is not stored, and may not be derived from the stored file. *See id.* Therefore, Scheidt fails to disclose storing the new encrypted symmetric key. Although not relied on by the Examiner, Rothrock also fails to disclose or render obvious the above cited claim.

In view of the above, it is clear that amended independent claims 1, 13, 20, and 30 are patentable over the cited prior art. Claims 3, 4, 14, 15, 22, and 23, which depend from independent claims 1, 13, and 20, are patentable for at least the same reasons. Accordingly, withdrawal is respectfully requested.

Claims 2, 19, and 21

Claims 2, 19, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothrock and Scheidt, and further in view of U.S. Patent No. 6,556,994 (“Zheng”). This rejection is also respectfully traversed.

As described above, Rothrock and Scheidt fail to disclose or render obvious the limitations of amended independent claims 1, 13, 20, and 30. Claims 2, 19, and 21 depend directly from claims 1, 13, and 20 respectively, and are therefore patentable over the cited art for at least the same reasons discussed above.

Moreover, Zheng fails to disclose or otherwise render obvious that which Rothrock and Scheidt lack. Specifically, Zheng fails to disclose a bitmap as a user data access record, as the Examiner has asserted. *See* Office Action dated April 3, 2009, page 8. Zheng is directed toward a bitmap used as a locking table which reflects the *currently* locked data. *See* Zheng, column 5, ll. 23-30. The locking table in Zheng does not maintain any records indicating which data has been accessed by a user, and is, therefore, not equivalent to a user data access record as recited in amended claim 1. Further, no other elements, or combination of elements, in Zheng, Rothrock, and Scheidt disclose or otherwise render obvious a user data access record as recited in amended claim 1. In view of the above, it is clear that claims 2, 19, and 21 are patentable over the cited art and, accordingly, withdrawal of the rejection is respectfully requested.

Claims 5-7 and 16-18

Claims 5-7 and 16-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothrock and Scheidt, and further in view of U.S. Patent No. 6,253,205 (“Quarato”). This rejection

is also respectfully traversed. As described above, Rothrock and Scheidt fail to disclose or render obvious the limitations of amended independent claims 1 and 13. Further, Quaranto fails to disclose or otherwise provide that which Rothrock and Scheidt lack. Specifically, Quaranto fails to disclose or otherwise render obvious any of the limitations of claims 1 and 13 described above. Claims 5-7 and 16-18, which depend from claims 1 and 13, contain the same patentable material as claims 1 and 13, and are therefore patentable over the cited art for the same reasons provided above. Accordingly, withdrawal of the rejection of claims 5-7 and 16-18 is respectfully requested.

Claims 8, 10-12, 24, and 26-29

Claims 8, 10-12, 24, and 26-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothrock and Scheidt, and further in view of U.S. Patent No. 7,324,644 (“Saito”). This rejection is also respectfully traversed. Amended independent claims 8, 24, and 29 include similar limitations as amended claim 1 discussed above. The Examiner also cited Rothrock and Scheidt in maintaining the rejection. *See* Office Action dated April 3, 2009, page 10. As discussed above, neither Rothrock nor Scheidt disclose or render obvious a user data access record which comprises a bitmap indicating which encrypted data has been accessed by a user. Further, Saito fails to disclose or otherwise provide this limitation.

Claims 19 and 25

Claims 19 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothrock, Scheidt, Saito, and Zheng. This rejection is also respectfully traversed. As described above, Rothrock, Scheidt, Saito, and Zheng, either alone or in combination, fail to disclose or render

Conclusion

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Attachment (Replacement Drawing Sheet for Figure 3)